



Playing The Numbers Game: Program Ratio Management In Nonprofit Organizations

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Abstract

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Playing the Numbers Game

PROGRAM RATIO MANAGEMENT IN NONPROFIT ORGANIZATIONS

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Nonprofit organizations are often evaluated using the program ratio: the proportion of mission-related program expenses to total expenses. Nonprofit managers have incentives to manipulate the reporting of financial information to enhance the program ratio. This article reviews the scholarly literature on program ratio management in nonprofit organizations. Prior research has identified several motivations for and methods of program ratio management and provided limited evidence that it occurs. Researchers have explored the consequences of program ratio management and provided a list of factors mitigating such behaviors. The emerging consensus is that the program ratio is of limited usefulness in evaluating nonprofit performance.

Keywords: *program ratio; program ratio management; nonprofit organizations; earnings management; nonprofit performance measures*

EXTANT LITERATURE PROVIDES CONSIDERABLE EVIDENCE of many publicly traded, profit-seeking corporations manipulating reported numbers to influence the perceptions and decisions of financial statement users (Dechow and Skinner 2000; Graham, Harvey, and Rajgopal 2005; Habib and Hansen 2008; Healy and Wahlen 1999; Schipper 1989). However, for-profit corporations are not alone in the practice of intervening in the financial reporting process to present more favorable results. Nonprofit managers also face pressures to manipulate financial results. Although their success is not measured by profit margins or rates of return, nonprofit organizations are evaluated using financial reports.

Recently, the nonprofit sector has grown substantially and has begun to attract more attention. Advances in technology, coupled with broader disclosure requirements by regulators, have increased access to nonprofit financial information. Internal Revenue Service (IRS) Form 990 annual reports are now publicly available through various websites. This increased access has resulted in heightened scrutiny of how nonprofits spend their money, especially in light of several high-profile scandals in recent decades (Dimsdale 2009; Shepard and Miller 1994; Simross 1992). The role of charity “watchdog” agencies has grown, and donors have become more discriminating when disbursing their scarce resources. Competing with thousands of other nonprofits for resources and knowing they are commonly judged on their

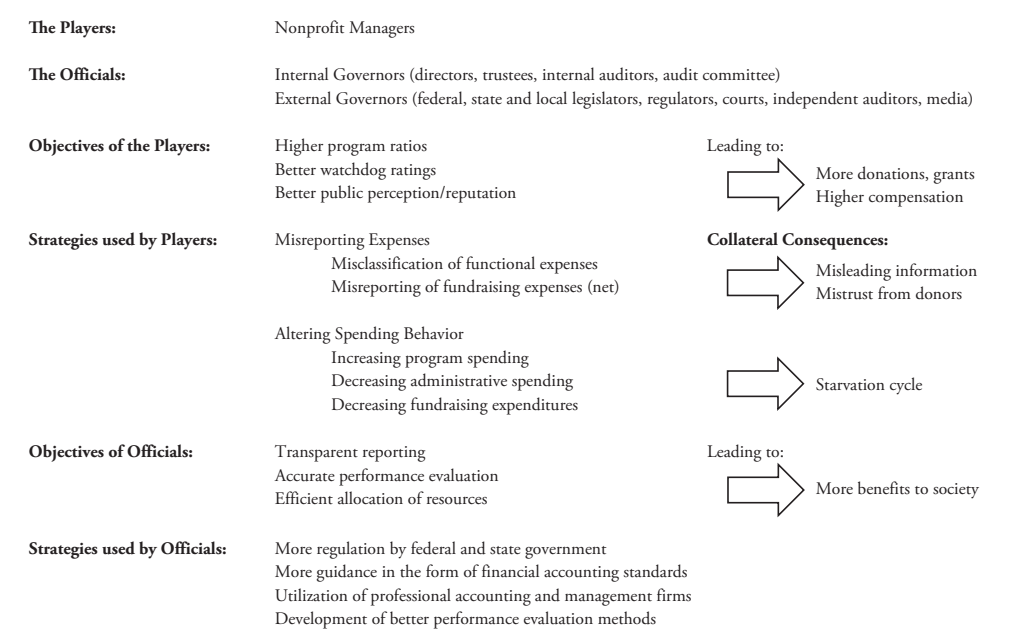
financial results, some nonprofit managers may resort to playing a numbers game to make the organization look as favorable as possible. Figure 1 describes the elements of this game.

Although management of financial results by profit-seeking corporations tends to focus on net income, management of financial results by nonprofits is more likely to focus on the program ratio (Khumawala, Parsons, and Gordon 2005)—the proportion of total expenses dedicated to providing programs that fulfill an organization’s mission. The program ratio is typically computed as program expenses divided by total expenses. An alternative measure is the overhead ratio, computed as administrative and fundraising expenses divided by total expenses (or total revenues). The ratios sum to unity—a nonprofit channeling 75 percent of its expenditures to programs necessarily spends the other 25 percent on overhead—so their relationship is inverse. Another alternative research metric is the “price” a donor must pay for one dollar of program activity, computed as total expenses divided by program expenses. The product of the program ratio and price is unity; again, there is an inverse relationship. For clarity, in this article we discuss all research in terms of the program ratio.

Like earnings management, program ratio management has implications for many stakeholders, including nonprofit managers, regulators, and donors. Program ratio manipulation reduces the decision usefulness of financial information and lowers the quality of financial reporting. An increased understanding of this topic can lead to improvements in nonprofit financial reporting and better resource allocation within the nonprofit sector.

The purpose of this article is to provide a summary of academic research addressing program ratio management in the nonprofit sector. This article is not an exhaustive review of the literature; rather, it summarizes and synthesizes the major findings of prior research and helps researchers identify any gaps in the literature that future research might fruitfully address.

Figure 1. Elements of the Numbers Game



We focus on program ratio–related studies published in leading accounting journals and give heed to relevant studies from nonprofit-centered journals and websites.

We explore the motivations and methods identified in these studies and evaluate the evidence that program ratio management occurs. We examine the purported consequences of program ratio management, including donors' reactions to managed program ratios, and the list of factors researchers suggest mitigate such behaviors. We discuss the emerging consensus that the program ratio is of limited usefulness in evaluating nonprofit performance and offer suggestions for the direction of future research.

Incentives for Managing the Program Ratio

There are important incentives for nonprofit managers to engage in program ratio management (see “Objectives of the Players” in Figure 1). The program ratio is one of the most commonly used metrics for evaluating efficiency and effectiveness in the nonprofit sector (Flack et al. 2004; Krishnan, Yetman, and Yetman 2006). Research suggests the program ratio may be used to evaluate and reward managers' performance, and charity rating agencies base their ratings at least partially on the program ratio. Thus, a high program ratio reflects favorably on the organization as well as its management.

Most significantly, research shows that higher program ratios are important to donors and are associated with higher donations. Large donors may pressure nonprofits to keep overhead costs to a minimum, and many grantors, particularly from the public sector, limit the amount of grant money available for overhead (Bedsworth, Gregory, and Howard 2008; Keating and Frumkin 2003). The Nonprofit Overhead Cost Project, conducted from 1999 to 2004 by researchers at the National Center for Charitable Statistics (NCCS) and Center on Philanthropy at Indiana University, concluded a majority of nonprofits underreport fundraising and administrative expenses (thus overstating the program ratio) on their Forms 990 as well as in fundraising materials, and donors tend to reward organizations with higher program ratios (www.coststudy.org).

Use of the Program Ratio by Donors

Survey evidence suggests that donors consider the program ratio a significant factor in their giving decisions. A 1988 Roper Organization survey found that 82 percent of respondents rated the amount spent for programs as important in their decision to contribute to a nonprofit organization (Glaser 1994). The Hudson Institute (Stehle 1998) and Princeton Survey Research Associates (2001) had similar findings. Recent studies found, on average, that people believe the appropriate amount for program spending should be 77 or 78 percent of total spending (Grey Matter Research and Consulting 2012). Surveys, however, cannot tell us whether donors actually view or compute the program ratio before deciding whether or how much to donate.

A number of empirical studies have found evidence to suggest that donors use the program ratio in donation allocation decisions. One stream of research utilizes archival data from large samples of public charities in the United Kingdom (Khanna, Posnett, and Sandler 1995; Khanna and Sandler 2000; Posnett and Sandler 1989), Canada (Callen 1994), and the United States (Jacobs and Marudas 2009; Marudas and Jacobs 2006; Okten and Weisbrod

2000; Tinkelman 1998, 1999; Weisbrod and Dominguez 1986). Using a variety of econometric methodologies in an attempt to control for multi-collinearity, measurement error, and other problems, donations were regressed on the inverse of the program ratio as well as other control variables. Negative price elasticities were noted in all these studies, implying that donations are positively associated with the program ratio. Association, however, does not prove causation. Wide variations in coefficient estimates as well as low *r*-square values in many of the models suggest the variables included in these regressions, while statistically significant, explain only a small part of the variation in donations. Do nonprofits with higher program ratios attract more donations because they are seen as more efficient, or are they able to spend more on programs because they have more money to work with? Is there an omitted variable (managerial sophistication or dedication, and so on) that affects both donations and reported program spending? It is impossible to say with certainty. Furthermore, these archival studies provide no direct evidence that donors actually compute or view the program ratio before making a donation decision.

Bowman (2006) used data compiled from a workplace fundraising campaign involving federal employees in the Chicago area. Each employee was given a “Donor Guide” that included a short description of several hundred charities, along with the overhead ratio of each. Employees had to use the guide to choose which, if any, charities to donate to. So, presumably, employees must have seen the overhead ratios. Regression analyses found changes in a charity’s program ratio correlated positively to changes in amounts donated. Although results were statistically significant, the economic significance was quite modest, leading Bowman to conclude that “collectively other factors are much more important” (Bowman 2006, 306).

Stout (2001) conducted a survey experiment with seventy-six individuals comprising fifteen separate United Way allocation committees in a large southeastern US city, and found that participants (primarily business managers and professionals) purposefully considered the program ratio and allocated more resources to organizations with higher program ratios. Buchheit and Parsons (2006) experimentally investigated donors’ use of financial information, utilizing 157 MBA students. They found that 89 percent of donors who chose to view financial accounting information donated to the organization with the highest program ratio—but only 30 percent of participants chose to view any financial information before making their donation. McDowell, Li, and Smith (2013), using an Internet-based experiment with thirty-six undergraduate students, found that participants did not seem to integrate the program ratio into their donation decisions. Van der Heijden (2013) conducted an online experiment in which 226 individuals allocated a theoretical donation among three similar charities, then were allowed to adjust their donations after viewing the program ratios of the charities. Participants adjusted donation intentions downward for the charity with the lowest program ratio and upward for the charity with the highest program ratio. Overall, experimental studies provide compelling evidence of the use of the program ratio by donors, but given the artificiality of the settings, it is unclear whether the results are generalizable.

Use of the Program Ratio by Charity Rating Agencies

Charity rating agencies, such as the Better Business Bureau’s (BBB) Wise Giving Alliance, the American Institute of Philanthropy (AIP), and Charity Navigator, have guidelines for acceptable program ratios used in evaluating and rating nonprofit organizations. The AIP (www.charitywatch.org) suggests that a program ratio of 60 percent or higher is reasonable for most organizations. The BBB requires a minimum program ratio of 65 percent.

Organizations with program ratios less than 33.3 percent receive a zero-star rating for financial health from Charity Navigator.

Empirical results that agency ratings influence donors' giving decisions have been mixed. Gordon, Knock, and Neely (2009) found that changes in ratings are positively associated with changes in contributions for a random sample of organizations listed on the Charity Navigator website in 2007. Tinkelman (1999) and Chen (2009) found that meeting BBB standards was positively associated with contributions, particularly from large donors such as corporations, foundations, and grantors. Sloan (2009) found a positive association between donations and "pass" ratings from the BBB, although "fail" ratings did not appear to affect donations. Silvergleid (2003) found that nonprofits meeting the Minnesota Charities Review Council (a state-based charity rating agency) standards are more likely to receive higher donations; however, AIP ratings were not significantly associated with donations. Finally, van der Heijden's (2013) research participants adjusted their donation intentions upward or downward after learning whether the charities passed or failed the BBB's minimum program ratio standard of 65 percent. The preponderance of evidence suggests that some donors, particularly large donors, pay attention to charity agency ratings, or at least reward the same qualities as the ratings agencies, when making donation decisions.

Other Users of the Program Ratio

Nonprofit governing boards; federal, state, and local regulators; and the media may consider the program ratio or charity ratings to evaluate performance. Baber, Daniel, and Roberts (2002) found that changes in executive compensation are positively associated with changes in the program ratio, and infer that the program ratio may be used to monitor managers' performance, with managers rewarded for taking actions to increase reported program expenses. Grasse, Davis, and Ihrke (2014) found that executive compensation is positively associated with the program ratio, which appears to support Baber et al.'s (2002) inference. In *Madigan v. Telemarketing Associates, Inc.* (538 U.S. 600, 2003), the state of Illinois, supported by the BBB and forty-five other states attorneys general, sued the telemarketing firm for fraud. Charges were based on evidence that almost all donations raised on behalf of the nonprofit VietNow went to the telemarketer or were used to cover VietNow's administrative costs. Although the US Supreme Court ruled against Illinois, the point was made that state regulators expect nonprofits to meet some minimum program ratio standard. The press also seems to expect a minimum standard for program spending, particularly when reporting on public charities. Financial news website *24/7 Wall St.* listed Cancer Fund of America as one of the nine worst-run charities in 2009, because it "only spends 17 percent of its budget on program services" (Berr and Stockdale 2010). Such negative publicity may be especially harmful to nonprofits, as a recent survey found the news media to be the most frequently utilized information resource for potential donors seeking more information about nonprofits' performance (McDougle and Handy 2014).

Methodology and Evidence of Program Ratio Management

When playing the numbers game, there are two basic strategies (see Figure 1): (1) misreporting amounts spent in the functional classifications, or (2) altering real spending. We discuss these next.

Misreporting Functional Expenses

The program ratio can be improved by overreporting the numerator (program expenses) or underreporting the denominator (fundraising and administrative expenses). Extant literature presents two ways nonprofit managers can misreport expenses: (1) misclassifying expenses (including misallocating shared expenses), and (2) avoiding disclosure of fundraising expenses by netting them against funds raised. We examine each method in turn.

Misclassifying Functional Expenses

Generally accepted accounting standards and the instructions for IRS Form 990 require nonprofits to classify expenditures among three functional categories: program, fundraising, and administrative. Program expenses relate to mission-fulfilling activities offered by the organization, fundraising expenses relate to marketing the nonprofit's image and soliciting contributions or grants, and administrative expenses relate to the overall operations and management of the organization. To improve its program ratio, a nonprofit may choose to inappropriately classify some, or all, of its fundraising or administrative expenses as program expenses (Hager 2003a; Yetman and Yetman 2012).

A considerable body of research examining publicly disclosed nonprofit financial reports shows a large number of nonprofits reporting zero fundraising costs despite reporting substantial contributions (Bhattacharya and Tinkelman 2009; Garven and Parsons 2015; General Accounting Office 2002; Krishnan et al. 2006; Scripps Howard News Service 2012; Wing et al. 2006; Yetman and Yetman 2012, 2013). Results suggest fundraising expenses are being misclassified as program expenses (although it could also be a function of net reporting of funds raised, or the use of nonconsolidated affiliates to conduct fundraising activities, as discussed later). Research also has found that many nonprofits report zero administrative expenses (Pollak and Rooney 2003; Wing et al. 2006; Yetman and Yetman 2012) or incorrectly classify certain types of administrative or fundraising expenditures, such as accounting, professional fundraising, or grant proposal writing fees, into the wrong functional categories despite clear accounting guidelines and IRS instructions to report them in a particular category (Hager 2003a, 2003b; Keating, Parsons, and Roberts 2008; Wing et al. 2006).

Some costs can span more than one functional category. Shared costs represent expenses incurred for multiple purposes: "rent for a building that is used for classes (program expense) and administrative offices (administrative expense) or postage to pay for a flier that asks for a donation (fundraising expense) and provides educational information (program expense)" (Parsons, Pryor, and Roberts 2012, 20). The latter example is a specific category of shared costs referred to as joint costs, the costs of combined educational and fundraising campaigns. Nonprofit management can improve the organization's program ratio by increasing the proportion of shared costs allocated to programs or by misclassifying fundraising or administration costs as allocated shared costs.

In 1998, responding to concerns that nonprofits were hiding fundraising costs through joint cost allocation, the American Institute of Certified Public Accountants issued *Statement of Position (SOP) No. 98-2, Accounting for Costs of Activities of Not-for-Profit Organizations and State and Local Governmental Entities That Include Fund Raising*. This standard continues to allow organizations to allocate joint costs across functions but only for expenses that meet three criteria involving purpose, audience, and content. Joint costs that do not meet all three criteria must be reported as fundraising. However, because of the technical nature of the rules

and a lack of specified allocation methods, managers still have considerable discretion in identifying and allocating joint costs (Hager 2003a; Jones and Roberts 2006).

Jones and Roberts (2006) provide evidence that nonprofits use joint cost allocations to manage program ratios. Using a sample of nonprofits reporting joint cost activities, they found an inverse relationship between the joint-cost ratio and the program ratio as well as the share of joint costs allocated to programs. These results are consistent with nonprofits manipulating the amount of fundraising costs identified as joint costs, as well as the proportion of joint costs classified to program activities, to smooth changes to their reported program ratios. Only about 2 percent of nonprofits report joint costs (Krishnan et al. 2006), so the sample studied is small and biased toward larger organizations. Tinkelman (2009) examined data from the Avon Products Foundation's breast cancer fundraising walks from the period 1998 to 2006 and found the organization began questionable joint cost allocation practices in 2003, about the same time BBB decided to tighten its standards for "good" program and fundraising ratios. Joint cost allocations helped Avon to meet the new, tighter BBB standards. Tinkelman (2009) noted that, prior to 2003, Avon did not allocate any of its fundraising expenses to programs or administration and concluded the joint cost allocation procedures adopted post-2002 did not appear to conform to professional accounting standards. He further noted, "Even if Avon could justify *some* allocation of joint costs to functions other than fundraising, its allocations to program services from 2003 to 2006 are unreasonably high" (491). Whether the results of the Jones and Roberts (2006) or the Tinkelman (2009) studies are generalizable to the larger population of nonprofits is debatable.

Parsons et al. (2012) surveyed more than two hundred nonprofit executives in 2008 and 2009 and found 20 percent admit to having revised an allocation of shared costs at the end of the year to improve their program ratios. Seventeen percent indicated they would be willing to alter shared cost allocations if necessary to meet a target ratio. Additionally, 35 percent of executives admitted to choosing shared cost allocation methods based on whatever methods allowed them to meet targeted program ratios.

Netting Fundraising Expenses from Funds Raised

Under both financial accounting and IRS Form 990 reporting rules, revenues and related expenses must be reported at their gross amounts. Thus, when a nonprofit engages in a fundraising campaign, it should report gross receipts as donations revenue and the associated expenses as fundraising, even when professional fundraising firms are used. The netting of fundraising expenses against funds raised improves the program ratio, because the total expenses in the denominator of the ratio will not include the fundraising expenses.

Comparing nonprofit financial reports to state telemarketing campaign reports, Keating et al. (2008) found 27 percent of the nonprofits in their sample appeared to improperly net telemarketing campaign expenses against contributions, resulting in overstated program ratios. Additionally, some nonprofits have been found to use unconsolidated affiliates to conduct fundraising (see the discussion of Greenpeace in Baber, Roberts, and Visvanathan 2001) and avoid having to report fundraising expenses.

How prevalent is misreporting of functional expenses? As the studies discussed show, this type of program ratio management can be difficult to observe empirically. Bhattacharya and Tinkelman (2009) looked at the distribution of program ratios reported by 111,000 nonprofits in 2001, but failed to find evidence of manipulation of ratios to just meet (rather

than just fail) BBB standards. They noted this does not mean nonprofits do not manage cost allocations; rather, any cost allocation manipulation is not centered on meeting BBB standards. Some of the research evidence is circumstantial, but compelling: Krishnan and Yetman (2011) compared the public financial disclosures (IRS Forms 990) with the regulatory filings of a group of nonprofit hospitals in California and found the average program ratio was 77.4 percent when reporting to the state regulatory commission, but 86.5 percent on the IRS Form 990. This discrepancy strongly suggests that the numbers most likely to be seen by the public were managed upward. However, the evidence does not reveal whether misreporting or misallocating functional expenses is intentional. Pollak and Rooney (2003) found that although 16.3 percent of the Forms 990 they examined had zero administrative expenses, another 3.4 percent reported 100 percent of expenses as administrative. Clearly, some reporting anomalies are based on carelessness, confusion, or incompetence—not all are calculated deceptions.

Altering Real Spending

Nonprofit organizations may also attempt to improve program ratios by making real changes in their operating activities (Jones and Roberts 2006; Parsons et al. 2012; Tinkelman 2009). Such changes can involve reducing, delaying, or forgoing fundraising efforts or administrative spending or accelerating program spending (Parsons et al. 2012).

Parsons et al. (2012) reported 35 percent of the nonprofit executives surveyed admitted to changing administrative spending plans in the past to improve their ratios, including eliminating planned administrative staff hiring, forgoing computer system upgrades, avoiding staff training, and forgoing purchases of management or accounting software. The Parsons et al. (2012) study, however, is subject to the limitations of all survey research: low response rate with its potential for response bias, inability to ensure the questions were answered accurately and by the appropriate person, and uncertainty as to whether expressed intentions in a hypothetical situation correspond to actual behavior. Tinkelman (2009) described observable operational changes made by Avon to its breast cancer fundraising walks in an apparent effort to reduce its fundraising expenses and meet the new, tighter BBB standards for “good” program and fundraising ratios. Kitching, Roberts, and Smith (2012) used archival data from a large sample of US public charities to examine how donor pressure influences program spending decisions. Although failing to find evidence that charities across the board will manipulate overhead spending to increase the program ratio, they found that charities with relatively low program ratios will, in the presence of a budget increase, increase program spending at a faster rate than overhead spending and thus experience an increase in the program ratio. The Nonprofit Overhead Cost Project found that many nonprofits were underinvesting in facilities, technology, and human resources because of real or perceived constraints on overhead spending (www.coststudy.org).

Consequences of Program Ratio Management

Although the payoffs from engaging in program ratio management can be high (more donations, higher executive compensation, and better charity watchdog ratings), such behavior may have collateral costs and consequences, as shown in Figure 1. As Hager (2003a, 51) noted, nonprofits involved in this behavior may “win in the short run, [but] the bigger

picture points to a variety of losers.” These losers include nonprofits themselves, researchers, policy makers, regulators, and donors.

Consequences for Nonprofits

Researchers have speculated about the negative consequences of program ratio management, but they have struggled to provide empirical evidence. It seems logical to assume that without accurate and complete information, managers and boards may make poor future strategic decisions for their organizations (Hager 2003a, 2003b; Jones and Roberts 2006), but these are difficult to observe. Nonprofits that report unusually high program ratios or significant increases in program ratios may raise the suspicions of charity rating agencies or regulators, or arouse donors’ mistrust (Jones and Roberts 2006); but no direct evidence is available. As detailed in the “Consequences for Donors” section, some donors appear able to discern nonprofits’ attempts at certain forms of ratio management and accordingly discount these organizations’ program ratios when making their donation allocation decisions. Arguably, the worst collateral consequence for the nonprofit is the negative reputation effect resulting from being exposed for inaccurate or fraudulent reporting.

When organizations take strategic operational actions to improve their program ratios, they do so at the risk of decreased organizational effectiveness. The related literature recounts numerous anecdotes and case studies of nonprofits whose effectiveness was irreparably damaged by failure to build productive capacity or invest in physical, technological, and human capital. Although Avon’s operational changes to its cancer walks helped it meet BBB guidelines, this move resulted in less money raised for cancer research (Tinkelman 2009). Additionally, Hager et al. (2004), conducting detailed studies of nine nonprofit organizations, found nonprofits that spend inadequately on organizational infrastructure (fundraising and administration) are less effective at carrying out their missions than nonprofits that spend more appropriate amounts. Known as the “starvation cycle” (Gregory and Howard 2009), this phenomenon has been described as “a debilitating trend of under-investment in organizational infrastructure that is fed by potentially misleading financial reporting and donor expectations of increasingly low overhead expenses” (Lecy and Searing 2015, 539; see also Pallotta 2008).

A decade after the starvation cycle was first described and decried by Hager et al. (2004), Lecy and Searing (2015) used a panel of archival data to empirically explore its existence and parameters. They discovered overhead ratios declined (meaning program ratios increased) steadily by 2.6 percentage points from 1985 to 2010, with a larger decline in administrative expenses (fundraising ratios actually increased slightly during that time period). Although they cannot discern how much of that change is due to spending changes and how much might be due to reporting or allocation changes, either way, it indicates an alarming trend.

Consequences for Researchers, Policy Makers, and Regulators

Researchers, policy makers, and governmental regulators use nonprofit reports to better understand, evaluate, and govern the nonprofit sector (Hager 2003a, 2003b; Krishnan et al. 2006). Just as inaccurate or incomplete expense information can lead to poor future strategic management decisions, research based on inaccurate expense information or expense activity that deviates from normal operating practices can lead to erroneous research conclusions.

Public policy or governance decisions based on this research may not turn out to be in the public's or the nonprofit sector's best interests (Hager 2003a); however, no research to date has provided empirical evidence of this occurring.

Consequences for Donors

If donors rely on nonprofits' reported program ratios when making donation decisions, managed numbers can lead to nonprofit resource misallocation; that is, donors could contribute to nonprofits that use funds in ways that are not in the public's best interest (Hager 2003a; Jones and Roberts 2006; Krishnan et al. 2006; Yetman and Yetman 2012). Consequences of ratio management lessen if donors are sophisticated enough to detect and adjust for misreported items. Previous research provides mixed results regarding donors' abilities to unravel program ratio management. Most of this research focuses on two types of ratio management: (1) reporting of zero fundraising, which is fairly obvious upon a casual perusal of the Form 990; or (2) over-allocating joint costs to program services, which requires more diligent effort on the part of the donor to detect.

Yetman and Yetman (2013) performed a regression of donations on the program ratio and the usual control variables and included an indicator variable with value of one for zero reported fundraising, as well an interaction variable. Although the coefficients for the program ratio and the indicator variable were strongly and significantly positive, the coefficient for the interaction of the two was strongly and significantly negative. This finding provides evidence that donors discount, to some degree, the program ratio when making donation decisions for organizations that report zero-fundraising expenses. After adding an additional variable (and interaction variables) for donor sophistication, proxied by the ratio of restricted funds to total fund balances, the researchers concluded more sophisticated donors attach a larger discount to inflated program ratios. These results suggest donors are able to at least partially see through the zero-fundraising-expense form of program ratio management.

Three studies examined donors' reactions to misallocation of shared costs. Tinkelman (1998) used a sample of 191 large nonprofit organizations from 1990 to 1992 and employed a nonlinear regression of total donations on *price*, which was defined as unity minus the percentages of administrative, fundraising, and joint costs—in other words, the program ratio without any joint costs included as program expenses. He measured a coefficient for the joint cost variable to capture whether donors considered joint costs as similar to overhead costs (in which case the coefficient would be close to 1), or if donors considered joint costs to be valid program expenses, evidenced by a coefficient of zero (a negative coefficient would imply that joint costs are valued more highly than program service expenses). The coefficient of the joint cost variable had no statistical significance for the full sample; but when he examined different categories of donors, his tests revealed large donors (corporations, foundations, and grantors of legacies) treat joint costs similarly to fundraising, but small donors (individuals) appeared to disregard joint cost allocations or else to accept the validity of the amounts reported as program-related joint costs.

Khumawala et al. (2005) conducted an experiment with sophisticated donors (thirty-two executives and financial officers) and unsophisticated donors (ninety-three students) who were asked to analyze financial information for two competing nonprofits and decide how much of a stated contribution to allocate to each of them. The two entities were essentially identical except for the way in which they allocated joint costs. One organization appeared to

spend less on fundraising than the other, unless the footnote disclosures were used to undo the joint cost allocation. Both groups of donors appeared to accept the credibility of reported program ratios and ignored the effects of joint cost allocations in making donation decisions.

Flynn (2003), in a similar experiment, asked sixty-four MBA students to allocate a stated contribution between two competing nonprofits after analyzing financial reports. He found that even when those financial reports contained signs of highly questionable shared cost allocations that would inflate the program ratio, such as an unusually large percentage of officers' and directors' compensation allocated to program expense, half the participants still allocated the donation to the nonprofit with the higher program ratio. Overall, prior research indicates that while some donors appear to discern certain forms of program ratio management and adjust their contribution decisions, many do not, resulting in nonprofits often suffering no immediate consequences for misleading donors with inflated program ratios.

Mitigating Factors on Program Ratio Management

As shown in Figure 1, the officials of the numbers game include internal and external governors and regulators of the nonprofit sector; their strategies include regulation, guidance, and oversight. Past studies have investigated several factors that might mitigate program ratio management, including firm characteristics and various internal and external governance mechanisms. Increasingly, however, researchers and thought leaders are imploring for better methods of evaluating nonprofit performance.

Firm Characteristics and Internal and External Governance Mechanisms

Firm characteristics associated with less likelihood of program ratio management include larger size (Keating et al. 2008; Krishnan and Yetman 2011; Krishnan et al. 2006; Parsons et al. 2012), older age (Krishnan and Yetman 2011; Tinkelman 1999), better financial health (Krishnan et al. 2006), less dependence on donations as a funding source (Krishnan and Yetman 2011; Krishnan et al. 2006; Parsons et al. 2012), higher executive salaries (Keating et al. 2008), use of professional outside accountants or more experienced management (Keating et al. 2008; Krishnan and Yetman 2011; Krishnan et al. 2006; Parsons et al. 2012), use of accrual accounting (Keating et al. 2008), and IRC 501(c)(3) organization type (Keating et al. 2008). Findings suggest that some of the program ratio management identified in earlier research may be the result of a lack of sophistication or expertise by the nonprofits' managers or accountants.

Internal governance mechanisms negatively associated with misreporting include board compensation, board independence, and the presence of an audit committee (Krishnan and Yetman 2011; Yetman and Yetman 2012). Forms of external monitoring that are associated with less misreporting include capital provider monitoring (as a result of municipal bond issuance or receipt of donor-restricted contributions), greater federal and state regulatory oversight (through engagement in taxable activities and location in states with higher levels of state regulation and enforcement), undergoing a financial statement audit, and the enactment of better financial accounting guidance such as *SOP No. 98-2* and the Sarbanes-Oxley Act of 2002

(Garven and Parsons 2015; Keating et al. 2008; Krishnan et al. 2006; Yetman and Yetman 2012). Additionally, extant literature provides some evidence that certain audit-related factors have a limiting effect on program ratio management, such as hiring larger CPA firms and paying higher audit fees (Garven and Parsons 2015; Yetman and Yetman 2012). Results are mixed with respect to board size and use of a professional management firm (Krishnan and Yetman 2011; Yetman and Yetman 2012).

Alternative Measures of Nonprofit Performance

Perhaps the best remedy for program ratio management would be for donors, charity rating agencies, and other stakeholders of nonprofit organizations to take a more broad-based approach to evaluating nonprofit effectiveness and efficiency rather than focusing on a single ratio. Thought leaders in the nonprofit sector decry the widespread overreliance on high program ratios (or low fundraising and overhead ratios) to identify nonprofits worthy of support, noting that overemphasis on financial ratios places undue pressure on management to “manage” those ratios (Bedsworth et al. 2008; Hager 2003a, 2003b; Pallotta 2008; Pollak and Rooney 2003). At the forefront of this criticism is the Overhead Myth campaign, an important movement with broad support from GuideStar, the BBB Wise Giving Alliance, and Charity Navigator, to end “the false conception that financial ratios are the sole indicator of nonprofit performance” (overheadmyth.com).

Manipulated or not, there are several reasons why the program ratio is an inadequate measure of nonprofit performance. Steinberg (1983, 1986, 1988–89) stressed that the program ratio is based on average, historical data, while economic theory suggests donors should base their decisions on future, marginal data. Recent research shows future marginal program ratios are not highly correlated with past average ratios (Tinkelman 2004). Flack et al. (2004) noted the program ratio does not measure organizational effectiveness at all, because an organization can be very effective at providing programs while having comparatively high costs of fundraising and administration.

The US Supreme Court has repeatedly refused to validate state or local attempts to regulate nonprofits based on a minimum program ratio or maximum fundraising ratio. In *Village of Schaumburg v. Citizens for a Better Environment* (444 US 620, 1980); *Secretary of State of Maryland v. Joseph H. Munson Co.* (467 US 947, 1984); and *Madigan v. Telemarketing Associates, Inc.* (538 US 600, 2003), the Court has pointed out there is a wide range of acceptable expenses incurred by charities, and that a low proportion of program expenses does not necessarily indicate donors are being defrauded. The Financial Accounting Standards Board, in its concepts statements on nonprofit organizations, called for measurement and disclosure of efforts and accomplishments as well as financial information about revenues and expenditures.

Tinkelman and Donabedian (2007) discuss many of the shortcomings of the program ratio as a measure of effectiveness or efficiency. They present an alternative framework for evaluating nonprofits that includes not only the program ratio but also measures of percentage of revenues spent, outputs produced, and quality of those outputs. The Robin Hood Foundation, a nonprofit with the objective of ending poverty in New York City, uses benefit-cost analysis and qualitative information about programs as a basis for grant decisions. Their metrics allow comparison of impact across programs, no matter how dissimilar (www.robinhood.org). Guidestar, in its strategic plan, Guidestar 2020, states its goal to help transform the non-

profit sector into “a community powered by information and characterized by smart decisions” (Guidestar 2015). The Bill & Melinda Gates Foundation donated \$3 million to help achieve those goals (Guidestar 2014). With less reliance and emphasis on the program ratio, it will be less of a target for manipulation; furthermore, potential manipulation of financial ratios will have less negative impact if users are also examining other measures of nonprofit performance.

Conclusion

This article provides a summary of scholarly research addressing program ratio management in the nonprofit sector: the motivations, the methods, the consequences, and the remedies. Research has underscored the vulnerability of the program ratio to manipulation by management, either by misreporting or misallocating costs or by making operating decisions that will improve the ratio in the short run. Although there is some empirical evidence that misreporting and altering of real spending takes place, there is less evidence of any negative consequences, other than anecdotal evidence of the starvation cycle. We concur with the growing consensus among nonprofit researchers, however, that the use of simple expense ratios to evaluate nonprofit efficiency is shortsighted. There is an arresting and persuasive need to develop better methods for evaluating nonprofit performance and for identifying those organizations that are best at managing their resources, and this is where future research should focus. It is time to leave the numbers game behind and continue the quest for better, more relevant financial disclosures from nonprofit organizations, as well as for more informed analysis on the part of the users of that information.

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